

**Resume - George E. Smith, P.E.**

**Experience**

**2000-Present Consulting Engineer - Electric Power Transmission Systems Rutland, VT**

Principle of George E. Smith Consulting (a.k.a. “Analytic Technologies”)

- Vermont Department of Public Service - serving as T&D consultant reviewing transmission options with regard to the Area Specific Collaborative (ASC) Process where T&D options are analyzed in conjunction with DSM/DG options to provide least cost solutions to constrained areas.
- Vermont Department of Public Service – Performed detailed technical review of VELCO’s proposed Northern Loop transmission project. Assisted with detailed discovery and settlement negotiations.
- Hydro Quebec Transenergie - Served on President’s advisory panel for review of Transenergie’s proposed transmission line de-icing system.
- Connecticut Office of the Consumer Counsel – Assisted in reviewing a trio of transmission proposals brought to the Connecticut Siting Counsel to upgrade transmission to SW Connecticut.
- ISO New England – Reviewed and coordinated System Impact Studies(SIS’s) for new generation installations, reviewed and coordinated regional transmission reliability studies and interface expansion studies.
- Power Technologies, Inc. – Prepared a seminar on Power System Voltage Control Devices and instructed PTI courses on Power System Reliability and Protective Relaying.
- VELCO - Provided analytic support of Essex FACTS project including simulator testing and factory testing

**1981-2000 VELCO Rutland,VT**

1997-2000

Vice President Planning, Engineering, Construction and Field Services

Directed six functional areas including: system planning; system protection & electrical design; substation & transmission design/construction; substation electrical maintenance; CAD & resource planning; and facilities management.

- Provided executive level management and technical leadership for the Essex FACTS Project, which provides voltage support under contingency conditions for enhancing the reliability of the

VELCO transmission system.

- Continued oversight of studies associated with the Northwest Interconnection transmission upgrade and developed an option with enhanced transmission capacity.
- Continued expansion of VELCO's technical staffing in the areas of transmission planning, system protection/control, and construction/maintenance.

1992-1997

Director of Engineering and Construction

- Directed engineering and construction associated with a 115 kV pipe-type cable system to replace 2 miles of overhead transmission parallel to a scenic causeway at Sand Bar, Vermont to improve aesthetics.
- Directed the development of strategic transmission options involve upgrades of 115 kV transmission segments to 230 kV and 345 kV within existing corridors.
- Developed and managed implementation of a probabilistic technique for measuring regional electric reliability based on transmission system component outage frequencies and probabilistically weighted bulk transmission system conditions.
- Expanded the department to include in-house substation & transmission design and construction project management. In addition, expanded the department to include field service technicians, substation& transmission maintenance and construction crews.
- Developed corporate transmission upgrade strategic plan.

1987-1992

Manager of Electrical Engineering

- Managed all aspects of VELCO's protection&control and substation equipment additions and upgrades. Continued contributing actively at the engineering level.
- Expanded the department to include expertise in the area of system protection design and analysis.
- Developed concept of an Overload Mitigation System for Vermont's 115 kV tie to New York State at Plattsburgh and managed the project through commissioning.

1981-1987

System Planning/Protection Engineer

- Performed transmission planning studies to evaluate possible upgrades to VELCO's transmission system.
- Performed system protection design engineering to specify new relay systems, perform coordination studies and calculate relay settings for new transmission protection additions.

- Managed the design of transmission system upgrades required to integrate a 225 MW HVDC converter into VELCO's 115 kV transmission system. This back-to-back converter ties VELCO's system asynchronously to the 120 kV system of Hydro Quebec. Acted as lead engineer and project coordinator.

**1965-1981**

**Prior to VELCO**

1976-1981

Aerospace/Avionics Engineer  
VT

Engineering Consultant

Sudbury,

Performed analytical work including algorithm design, modeling and simulation studies for Honeywell and Boeing corporations related to the development of extremely accurate multisensored strategic guidance and navigation systems. These systems employed state-of-the-art optimal estimation technology based on probabilistic concepts.

1974-1976

Instructor

St Petersburg Community College

St. Petersburg, Fla.

Instructed various courses in the Engineering Technology Department including calculus, differential equations, electricity, control systems and electrical machinery.

1965-1974

Engineer, Manager of Software Development

Honeywell Aerospace Division

Clearwater,  
Fla.

- Performed in increasing levels of responsibility including senior engineer, principal engineer, and manager of software/systems development related to precision navigation systems for aerospace and defense applications.
- Participated in the team that designed the guidance system for the Space Shuttle Project. Performed dynamic simulations of the Shuttle vehicle and booster in all phases of flight.

## **Education**

1962-1965

University of Florida ("Fighting Gators")  
Gainesville, Fla.

- Master of Engineering - Electrical (Controls and Aerospace)
- Bachelor of Science in Electrical Engineering (with honors)

1959-1961

St. Petersburg Community College

St. Petersburg,

Fla.

- Associate in Engineering Technology (with honors)

## **Professional Affiliations**

New York State Reliability Council Executive Committee (active), Power Technologies(Shaw Group) TAG Associate, Northeast Power Coordinating Council Reliability Committee, New England Power Pool Transmission Planning Committee, Electric Council of New England Board of Directors, CITEQ Advisory Committee, former Chair Sudbury Town Planning Committee.

Professional Engineer – State of Vermont – Registration No. 7486